P612 THE USE OF PHYSICAL RESTRAINTS ON CHILDREN: A RE-EVALUATION AFTER A DECADE

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10.1136/archdischild-2019-epa.944

Background Physical restraint (PR), although controversial, is perceived as necessary for safe medical procedures. But also, this practice has important physical, psychological, social, ethical, legal and human rights consequences. In Turkey, pediatric nurses have been shown to use the restriction frequently.

Aim This study aimed to re-evaluate Turkish pediatric nurses' views and attitudes towards physical constraints after a decade.

Method This descriptive and cross-sectional study was carried out in two major hospitals in a capital city of Turkey between June-December 2018. The sample of the study consisted of pediatric units of 2 hospitals where the previous study was performed. All pediatric nurses were included in the study. A questionnaire based on the previous study was used (Demir, 2007). The questionnaire consisted of two sections: pediatric nurses demographics and ideas and attitudes towards PR, the consent obtained, PR types used and complications.

Findings According to the study, nurses applied physical restraint to an average of 3.21 patients over the past week. This rate is lower than the previous study and this difference is statistically significant ($p < 0.05$). The most commonly used PR methods in 2007 and 2018 are wrist (96.7%; 44.9%), ankle (81%; 28.8%), chest restraint by sheet (14%; 7.6%), respectively. There has also been a significant decrease in the rate of PR-related complications in parallel to the decrease in PR application rates and increased awareness of patient safety (2.3% and 23.2%, respectively). In the previous study, none of the nurses had received written or verbal consent from children or parents, while in the current study, 19.7% of nurses reported that they received consent from the child or their parents. In 2018, education and clinics are still associated with higher PR rates. It was determined that there is still no PR procedure in most of the pediatric clinics (100% and 50.7% in 2007 and 2018, respectively). 83.3% of nurses reported that nurse shortages were the main reason for increased PR usage.

Conclusion Although there is a decrease in the rate of usage of physical restraints by Turkish pediatric nurses, important issues such as obtaining informed consent, informing and establishing protocols related to PR are still not at the desired level. Actions are needed to reduce the use and complications of physical restrictions including the attention of nurse staffing and education on the use of restrictions.

P614 ECONOMIC EVALUATIONS OF BLOOD PRESSURE MONITORING TECHNIQUES- A REVIEW OF METHODOLOGICAL ISSUES

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10.1136/archdischild-2019-epa.945

Introduction The continued advancement in blood pressure monitoring techniques for hypertension raises the economic concerns. This signifies the value and importance of high

quality economic evaluations as a guide for an efficient allocation of scarce resources and making reimbursement decisions.

Aim To assess different methods for the economic evaluation of blood pressure monitoring techniques in hypertension with their strengths and limitations and to suggest potential ways to improve the quality of economic evaluation in this field.

Methods A critical literature review of methods used in economic evaluation in blood pressure monitoring techniques was done. A literature search was conducted in selected databases to identify the full economic evaluations, cost-analysis and cost-consequence analyses, earliest from 1990s to date. The quality assessment of the methods used was done based on the standard Drummond's guidelines and Philip's checklists.

Results Eighteen unique peer reviewed economic evaluations were identified in blood pressure monitoring techniques. The most frequent type of economic evaluation was cost-effectiveness analysis from healthcare perspective and Markov cohort modelling. The quality of the methods used needs improvement in different areas, mainly the study design, valuation of cost and outcome and uncertainty analysis. Overall, results of economic evaluations are to be applied with caution to other settings.

Conclusions There is a constant need to improve the magnitude and quality of economic evaluations in this health technology, especially for children, that should follow standard quality criteria. More and more economic evaluations need to focus on subgroups with increased risk for target organ damage to heart, kidney and brain, subsequent to hypertension. The care providers and policy makers need to give due consideration to the quality of these health economic evaluations in making evidence-based decisions for patients and society as a whole.

P615 PARENTS' OPINION ON VACCINATION

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10.1136/archdischild-2019-epa.946

Background The objective was to assess modern parents' attitude and the degree of their awareness of vaccination issues using a specially designed questionnaire. The vaccination issues are receiving close attention as scientists so medical practitioners. To study of the reasons for the rejection of vaccination has become particularly relevant in recent decades due to the anti-vaccination movement and outbreak in some countries.

Materials and methods The anonymous survey of 360 parents aged from 19 to 40 years old who were taking care of their children undergoing inpatient treatment was carried out. The selection of respondents was carried out by a random, continuous method. The questionnaire contained 34 questions with suggested answers to questions regarding parents' awareness and their attitude towards vaccinations in general.

Results The survey findings showed that 78.3% children were partly or fully vaccinated, whereas 21.7% children were not vaccinated. A total of 79% of parents believe that

vaccination is the most effective method of preventing infectious diseases. The majority of parents (80%) understand that vaccinated children are less likely to develop severe illness than those who have not been vaccinated. More than half of respondents (60%) are not satisfied the quantity with quality of information about vaccinations obtained from the doctor.

Conclusion The findings suggest that the majority of parents have a generally positive attitude toward vaccination and consider it necessary. However, respondents showed insufficient awareness of vaccination problems. Therefore, educational events should be planned and new methods of work should be developed to raise awareness about vaccination among parents.

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THE APPROACHES FOR EARLY DETECTION IMMUNE PERTURBATION IN CHILDREN LIVING IN URBAN AREAS WITH ADVERSE ENVIRONMENTAL

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10.1136/archdischild-2019-epa.947

Background The objective was to determine the approach of early detection immune perturbation in the children living under exposure to organic compounds with immunotoxicity. Although the impact of man-made environmental factors on the immune system is proven by clinical and immunological findings, many issues remain unsolved. Comprehensive studies analyzing humoral and cellular immunity are extensive, and few studies addressed definition of screening examination method.

Material and methods The comprehensive profound examination of 429 children at the age of 13–15 years living near the oil-refining complex has been carried out. All children were divided into groups based on the degree of man-made environmental factors impact and the ratio of echostructure changes in the spleen. The standard complex of clinical laboratory diagnostic technique was used in the presented study.

Results All the examined children have been divided into two groups. 1st group comprised 256 children who had significant ultrasonic changes of the spleen (multiple hypoechogenic homogeneous inclusions throughout the ultrasonic section of the organ). In the 2nd group (236 children) the ultrasonic examination had no disturbances of spleen (echostructure was homogeneous and fine-gritted). The chemical and analytical analysis of children's blood of children have been obtained statistically significant differences of the number of indicators for immune profile of children without disorders of spleen's echostructure (2nd group) vs the 1st group ($p \leq 0.05$). It was determined that children living in areas with technogenic pollution had significantly increased expression of CD19 +receptor and CD25 +receptor on T-lymphocytes (by relative and absolute measure) compared to the children's group living within the territory of minimal technogenic pollution ($p < 0.05$). The cause-effect relations between the existing deviations of the immunograms and the content of ecotoxins in the blood were proved by the mathematical model method.

Conclusion The diagnostic value of spleen's ultrasound spleen examination with the determination of the changes type in the parenchymatous tissue was determined and can be recommended as a screening method for assessment the impact of man-made environmental factors on the immune system of children living in urban areas.

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PRIMARY IMMUNODEFICIENCIES (PID) OF THE CHILD: ABOUT 16 CASES

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10.1136/archdischild-2019-epa.948

Introduction Primary immunodeficiency disorders (PIDs) in children are genetic diseases that affect adaptive or innate immunity. The importance and nature of the clinical signs depend on the deficit function predominantly within the immune system.

Objective To study the epidemiological, clinical, paraclinical, therapeutic and evolutionary characteristics of PID in children.

Patients and methods A retrospective study of 16 cases of primary immunodeficiencies (PID) of the child collected at the pediatric emergency and resuscitation department Hedi Chaker University Hospital Sfax over a period of 15 years (2004–2019).

Results 14 boys and 2 girls, mean age 3 years (range 2 months to 10 years). A notion of consanguinity was present in 15 cases. The respiratory manifestations were revealing in 9 cases. Five patients had impaired expression of HLA class II molecules, 4 patients had agammaglobulinemia, 5 patients had chronic septic granulomatous disease, 2 patients had hyper IgM syndrome and one patient had ataxia telangiectasia. Therapeutically all our patients have benefited from symptomatic treatment based on veinoglobulins. The outcome was favorable in 6 patients, one patient had hematopoietic stem cell transplantation, 4 patients had frequent hospitalisations for infections, and 5 patients had died.

Conclusion A better knowledge and characterization of the different immunodeficiencies allows an improvement of the care of these patients both preventive and curative, adapted to the deficit, as well as a more precise genetic advice.

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SYSTEMIC LUPUS ERYTHEMATOSUS OF THE CHILD: STUDY OF 6 CASES

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10.1136/archdischild-2019-epa.949

Objective To study the clinical, therapeutic and progressive features of systemic lupus erythematosus (SLE) in children.

Patients et methods A retrospective study of 5 cases of childhood SLEs collected at the Pediatric Emergency and Resuscitation Department Hedi Chaker University Hospital Sfax over a period of 13 years (2006–2018).

Results These are 3 girls and 3 boys. The age of onset of symptomatology ranged from 9 years to 13 years. The telltale